Tennessee Pollution Prevention Partnership Success Story



GM-Spring Hill Manufacturing Facility P.O. Box 1500 100 Saturn Parkway Spring Hill TN 37174 931-489-4839 www.gm.com



Environmental Due Care and P2 in Plant Refurbishment Minimizes Waste

The Member

GM-Spring Hill Manufacturing Facility is a highly integrated automotive manufacturing and assembly complex of about seven million square feet. Located in Spring Hill, a growing community located 40 miles south of Nashville, the plant lies within the borders of Maury County. The first vehicle, a Saturn S-Series sedan, rolled off the line in Spring Hill on July 30, 1990. Since then, we've shipped over 3.752 million cars and trucks.

Employees are in preparation to launch the newest crossover vehicle in the GM portfolio, the Chevrolet Traverse, due out in late 2008. The last Saturn vehicles to be produced in our plant, the Saturn VUE and Saturn ION came down the line in March 2007. Additionally, Ecotec engines (2.0L Turbo, 2.4L 4-cylinder engines) are machined, assembled, and supplied to five (5) different General Motors plants.

The Story

Over 2.5 million square feet of plant floor space was refurbished to accommodate new tooling and different vehicle production (larger vehicle, unibody frame instead of spaceframe, metal instead of plastic body panels).

Environmental planning during this intense effort enabled sound environmental protection and maximized pollution prevention opportunities in a safe, efficient, and economical manner. Planning included the following elements:

- Minimizing inventory (having just enough material to produce the final vehicle – set a new benchmark for GM for minimizing excess/obsolete material),
- Determining asset handling (systematically designating equipment and materials to keep, transfer to other GM or other company, donate, or scrap or dispose)

- Conducting a comprehensive environmental assessment of equipment (evaluate items such as refrigerants, fluids, batteries, and other potentially hazardous items on equipment and develop related by-product management plans and decontamination specifications)
- Detailing the logistics and coordination (waste segregation, intra-plant collection and movement, obtaining and labeling waste containers, arranging cleaning as needed, arranging waste transportation, defining roles and responsibilities, etc.,)
- Developing communication and training (Specialized decommissioning training including environmental management required for all workers, use of decommissioning checklists, daily inspections and tracking of environmental performance, routine team meetings, etc)

The Success

In addition to proper handling of removed equipment and materials, the facility optimized material reuse and recycling – e.g., relocation of refrigerators, drinking fountains, lighting fixtures, janitorial and maintenance chemicals; using leftover gasoline in farm and groundskeeping equipment; sending various production equipment to other GM facilities; energy reuse of activated carbon; recycling over 170 loads of equipment scrap, computers, electronics, metals, plastics, wood, and other materials.

On May 29, 2008, GM Spring Hill won the Excellence in Manufacturing Award and the Expansion Award from the Nashville Area Chamber of Commerce based on the refurbishment project.

The Pollution Prevented

Recycled more than: 20,000 tons of equipment metal scrap, 1,190 tons of wood, 300 tons of copper, 190 tons of cardboard, 175 tons of plastics, 125 tons of used oil, 46 tons of containers/packaging, 15 tons of lights, 3 tons of antifreeze, and 1 ton of batteries.